lithium alkoxide with vanadium oxide particles. Applicants believe that the Koksbang patent does not disclose claimed features of Applicants' claimed invention. Therefore, the Koksbang patent does not <u>prima facie</u> anticipate Applicants' claimed invention. Applicants respectfully request reconsideration of the rejection based on the following comments.

Applicants note that their approach for the generation of metal vanadium oxides is based upon production of vanadium oxide particles having an extremely small particle size and/or high uniformity with respect to particle size. The vanadium oxide particles produced by laser pyrolysis are subject to a separate U.S. Patent 6,106,798, entitled "Vanadium Oxide Nanoparticles." A copy of this patent is enclosed.

In contrast, the Koksbang patent uses a process based upon the use of commercial vanadium pentoxide or vanadium pentoxide produced from the decomposition of ammonium metavanadate. See, for example, column 4, lines 20-40. The Koksbang patent described the desirability of producing particles on the order of 10 microns or less. See, for example, column 1, lines 51-63. The Koksbang patent includes vague descriptions of the product lithium vanadium oxide produced by their methods. See, for example, column 2, lines 59-61, column 5, lines 4-6 and column 6, lines 58-61. The Koksbang patent is very unclear with respect to their average particle size and characterization of their particles generally. Specifically, the Koksbang patent does not describe how they evaluate particle size. As stated at column 6, lines 58-61, the Koksbang patent indicates in vague terms that the particles have a size "on the order of 10 microns." While the patent states that the particles are easily crushed to smaller particle size during formation of the cathode mixture, the basis for this statement is unclear since the difficulties of grinding are described in column 1 of the Koksbang patent and since the formation of the electrode mixture involves mixing with polymer and carbon particles. Due to the combination of materials in the cathode mixture, it would be difficult to evaluate size of the lithium vanadium oxide particles. Viewed as a whole, it is clear that the particle sizes described in the Koksbang patent refer to broad ranges of sizes within collections of particles and not to average particle sizes. Thus, the average particle sizes within collections of particles from the Koksbang approach are significantly greater than a micron. Therefore, the Koksbang patent does not anticipate Applicants' claimed invention.

With respect to the particle size distribution, the Examiner asserts that the particle size distribution would be the same since the process is the same. However, the processes are not the same. The Koksbang patent describes a solution-based approach in which a lithium alkoxide is reacted with vanadium oxide in alcohol with mild heating. See, column 2, lines 25-32 and column 4, lines 49-58. In contrast, Applicants' approach is based on a solid-state reaction with a dried lithium compound and vanadium oxide particles at a somewhat higher temperature using vanadium oxide produced by Applicants' methods. See, for example, Applicants' Example 3. Applicants' methods, in contrast with other particle production approaches, produces highly uniform particles. There would be no expectation that a solution based approach would result in particles with the claimed narrow particle size distribution.

With respect to claim 10, Applicants note that the Koksbang patent is completely silent with respect to the particle size of the vanadium oxide starting material. Claim 10 provides an average particle size for the starting material. The Koksbang patent only refers to the particle size of the product particles. Therefore, the Koksbang patent does not prima facie anticipate the method of Applicants' claim 10.

In conclusion, the Koksbang patent does not <u>prima facie</u> anticipate Applicants' claimed invention. Applicants respectfully request withdrawal of the rejection of claims 1-3, 6-10, 17 and 22-26 under 35 U.S.C. §102(b) as being anticipated by the Koksbang patent.

## **CONCLUSIONS**

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

to S. Dard

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